

**What is Claimed is:**

1. A method of predicting the abuse potential of a drug or substance when administered to an individual patient for chronic therapy or used habitually, comprising: a) conducting a single-patient, cross-over drug trial of a drug or substance which is habit forming and a placebo in a new patient who is a candidate for treatment with the drug; b) comparing the information accumulated from a pre-assembled patient population database comprising a plurality of single-patient, crossover drug trials concerning liking scores, abuse potential scores, and patient's desire to re-use the drug administered for chronic therapy and the placebo, with information from the single-patient drug trial of the new patient to aid in the interpretation of the abuse potential and appropriateness of the drug for chronic treatment for the new patient; and c) optimizing treatment for the new patient by taking one of the following actions: (i) continuing chronic drug therapy for the new patient using the same drug and dosage regimen and optionally providing drug counseling; (ii) changing the dosage regimen of the same drug in order to minimize the abuse potential for the new patient and optionally providing drug counseling ; or (iii) ceasing to treat the new patient with the drug if the liking scores, the abuse potential scores, and patient's desire to re-use said drug indicate undue abuse potential.
2. The method of claim 1, further comprising assembling said patient population database from a plurality of cross-over single patient drug trials prior to conducting step a.
3. The method of claim 2, further comprising adding the results from the single patient drug trial of the individual human patient to the patient population database.
4. The method of claims 2, further comprising accumulating the information of step b) via the use of objective testing methodologies selected from the group consisting of blood pressure, cholesterol, blood sugar, glycosylated hemoglobin and combinations of any of the foregoing.
5. The method of claim 2, further comprising prescribing said drug for chronic therapy in said patient.

6. The method of claim 2, wherein said patient population database is stored on a computer.
7. The method of claim 6, wherein said computer database is accessible from a remote location.
8. The method according to claim 1, further comprising adding the results from said liking scores, said abuse potential scores, and said desire to re-use said drug from said single-patient drug trial of said new patient to said patient population database.
9. The method of claim 1, further comprising assembly of said patient population database by providing to each patient in said patient population a test kit containing a supply of said drug; a supply of said placebo; and a questionnaire designed to elicit from said patient population information concerning said liking scores, said abuse potential scores, and desire to re-use said drug.
10. The method according to claim 1, wherein said drug is selected from the group consisting of a drug for treating hyperkinetic behavior, somnolence, anxiety, a central nervous system stimulant, a narcotic analgesic drug, an anticonvulsant drug, a sedative-hypnotic drug, and a steroid drug.
11. The method according to claim 9, wherein said drug for treating hyperkinetic behavior is methylphenidate.
12. The method according to claim 9, wherein said narcotic analgesic is selected from the group consisting of alfentanil, allylprodine, alphaprodine, anilerine, benzylmorphine, bezitramide, buprenorphine, butorphanol, clonitazene, codeine, codeine methyl bromode, codeine, desmorphine, dextromoramide, dezocine, diampromide, dihydrocodeine, dihydrocodeinone enol acetate, dihdromorphine, dimenoxadol, dimepheptanol, dimethylthiambutene, dixaphetyl butyrate, dipipanone, eptazocine, ethoheptazine, ethylmethylthiambutene, ethylmorphine, etonitazene, fentanyl, hydrocodone, hydromorphone,

hydroxypethidine, isomethadone, ketobemidone, leverphanol, lofentanil, meperidine, meptazinol, metazocine, methodone, metopon, morphine, nyrophine, nalbuphine, narceine, nicomorphine, norlevorphanol, normethadone, normorphine, norpipanone, opium, oxycodone, oxymorphone, papaveretum pentazocine, phenadoxone, phenazocine, phenoperidine, piminodine, piritramide, proheptazine, promedol, propiram, propoxyphene, remifentanil, surfentanil, tilidine, and any salts thereof and mixtures thereof.

13. The method according to claim 9, wherein said drug for treating anxiety is a benzodiazepine.

14. The method according to claim 12, wherein said benzodiazepine is selected from the group consisting of alprazolam, bromazepam, camazepam, chlordiazepoxide, clobazam, clorazepate, clotiazepam, cloxazolam, demoxepam, diazepam, ethyl loflazepate, etizolam, fludiazepam, flutazolam, flutoprazepam, halazepam, ketazolam, lorazepam, loxapine, medazepam, metaclazepam, mexazolam, midazolam, nitrazepam, nordazepam, oxazepam, oxazolam, pinazepam, prazepam, tofisopam, and any salts thereof and mixtures thereof.

15. The method according to claim 9, wherein said sedative-hypnotic drug is selected from the group consisting of acecarbromal, apronalide, bromisovalum, carbromal, chloral hydrate, glutethimide, chloral betaine, chloral formamide,  $\alpha$ -chloralose, chlorhexadol, diethylbromoacetamide, ethchlorvynol, pentaenthritol chloral, mecloqualone, ethaqualone, methypylon, opium, paraldehyde, sulfomethylmethan, sulfon methane, zolpidem, allobarbitol, amobarbital, aprobarbital, barbital, brallobarbitol, butabarbital, butalbital, butallylonal, butethal, carbubarb, cyclobarbitol, cyclopentobarbital, enallylpropymal, 5-furfuryl-5-isopropylbarbituric acid, heptabarbitol, hexethal sodium, hexobarbital, mephobarbital, methitural, narcobarbital, nealbarbital, pentobarbital, phenallymal, phenobarbital, phenylmethylbarbituric acid propallylonal, proxibarbal, reposal, secobarbital, talbutal, tetrabarbitol, vinbarbital, vinylbital, salts thereof, and mixtures thereof.

16. The method according to claim 9, wherein said central nervous system stimulant is selected from the group consisting of amphetamine, benzphetamine, caffeine, chlorphentermine, chlortermine, coca, dextroamphetamine sulfate, diethylpropion, N-ethylamphetamine, fenethylline, mazindol, methamphetamine, methylphenidate, pemoline, phendimetrazine, phenmetrazine, phentermine, pipradrol, pyrovalerone and any salts thereof and mixtures thereof.

17. The method according to claim 9, wherein said steroid is selected from the group consisting of boldenone, clostebol, ethylestrenol, fluoxymesterone, formebolone, mesterolone, methandriol, methandrostenolone, methenolone, 17-methyltestosterone, nandrolone, norethandrolone, oxandrolone, oxymesterone, oxymethalone, standone, stanozolol, testosterone, trenbolone, salts thereof, and mixtures thereof.